



STEEL
WINDOW
ASSOCIATION

FACT SHEET

W20 WINDOWS & DOORS

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W20 is the traditional framing system, 32mm wide with 5mm thick flanges, originally developed for commercial buildings, public buildings and industrial applications however it is now being used for domestic applications as well due to its versatility.

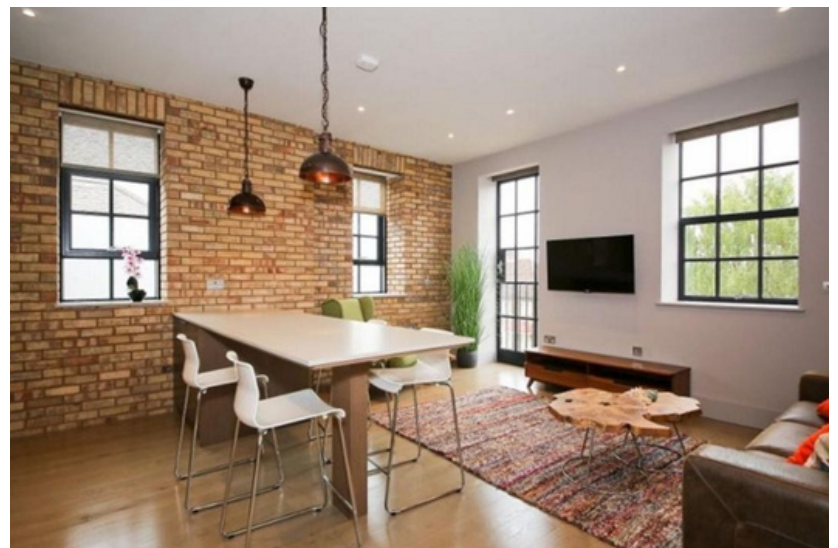
It accommodates single glazing or double glazed

insulated sealed glass units up to 18mm thick in the same profiles simply with a change of bead. All glazing, whether in fixed lights or casements are on the same plane.

It can be divided into small panes using 'T' glazing bars, having a table face width of no more than 29mm.

Opening types can be hinged opening windows that can be hung at the top, bottom or side. Also swing windows using pivots which can be positioned horizontally or vertically. Single and double doors are also constructed from the same suite of profiles.

Elemental coupling is achieved with simple slender transoms and mullions.



W20 INTERNAL SECTIONS

Steel framed windows and doors are being requested more and more by home owners, Interior designers and architects as a way of enhancing a properties characteristics and achieving modern and contemporary aesthetic.

The W20 suite of steel profiles is ideally suited for this application as they are versatile, slim, strong and specifically designed to incorporate either single or double glazing.

Steel Window Association members manufacture and install a variety of products that will enhance a homes appeal. These range from fixed glazed screens, hinged single and double doors, sliding single and double doors and pivot doors. All will allow natural light to flow through between rooms and create a light and airy space.

Designs for these products are not off the shelf and so the client in conjunction with the SWA member is able to create a product that is unique to them and their project. As these products are specifically for internal applications, the steel frames are available in a variety of finishes. These range from the 'raw' steel finish where you can see all of the welds and joints, galvanised finish which gives a silvery industrial aesthetic, powder coat finished in a variety of colours mainly from the RAL colour chart and also including metallic and even textured surfaces.

The ironmongery to the doors is normally specific to this product but the SWA member will have a catalogue of products that will suit the application and further enhance the appeal of the doors. Items such as lever handles, recessed handles, pull handles, espagnolette bolts and shoot bolts are all available and normally in a variety of colours and finishes.

The frames can be glazed in a wide range of glass types. As standard the glass would normally be a clear safety glass but members can also provide reeded, laminated, obscured, satin and Georgian wired glass. In some cases clients need improved sound insulation or thermal efficiency and these frames can be double glazed.

Where the client has a requirement for thirty minute fire integrity protection our members can offer fixed glazed screens and single or double doors/screens that have been tested to achieve this (subject to approval by your building control officer). We have more detailed information for these products in our 'fire protection' tab.

W20 EXTERNAL SECTIONS

Our members can manufacture steel windows and doors using W20 hot rolled steel profiles for external useage. These are the slimmest profiles that are able to create steel doors, door screens and windows that comply to current building regulations.

2023 doors and screens show compliance with part L building regulations by achieving a BFRC DERS energy rating of 'B' and also achieve a 2.0 W/m²K overall U value (based on the standard reference door calculation). Both windows and doors can be provided with double glazed units achieving a 1.2 W/m²k centre pane U value or better.

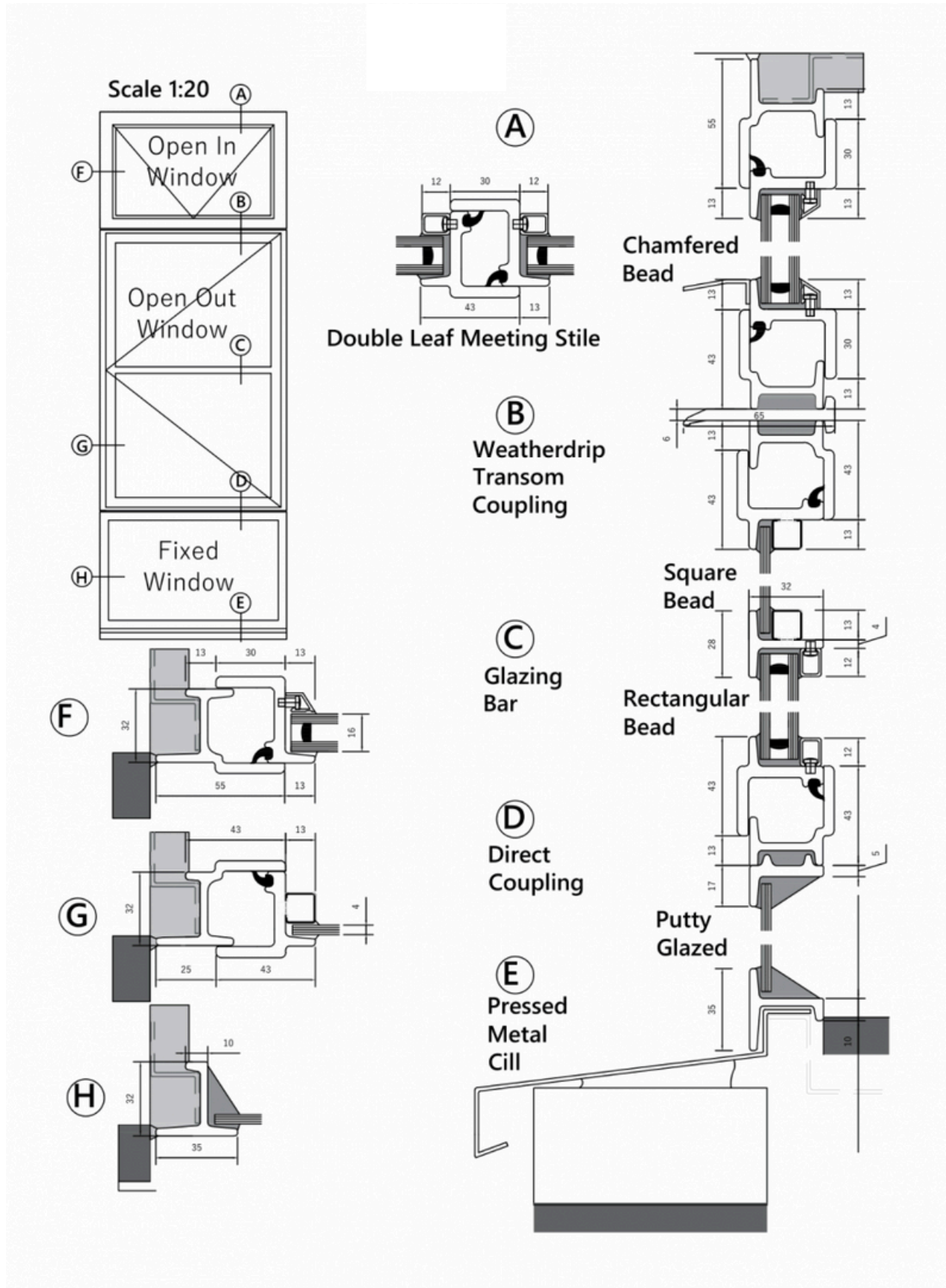
The majority of domestic external steel doors and door screens that are seen on social media will be manufactured from this system as it has the slimmest profiles and therefore provides stunning aesthetics between the outdoor space and the home.

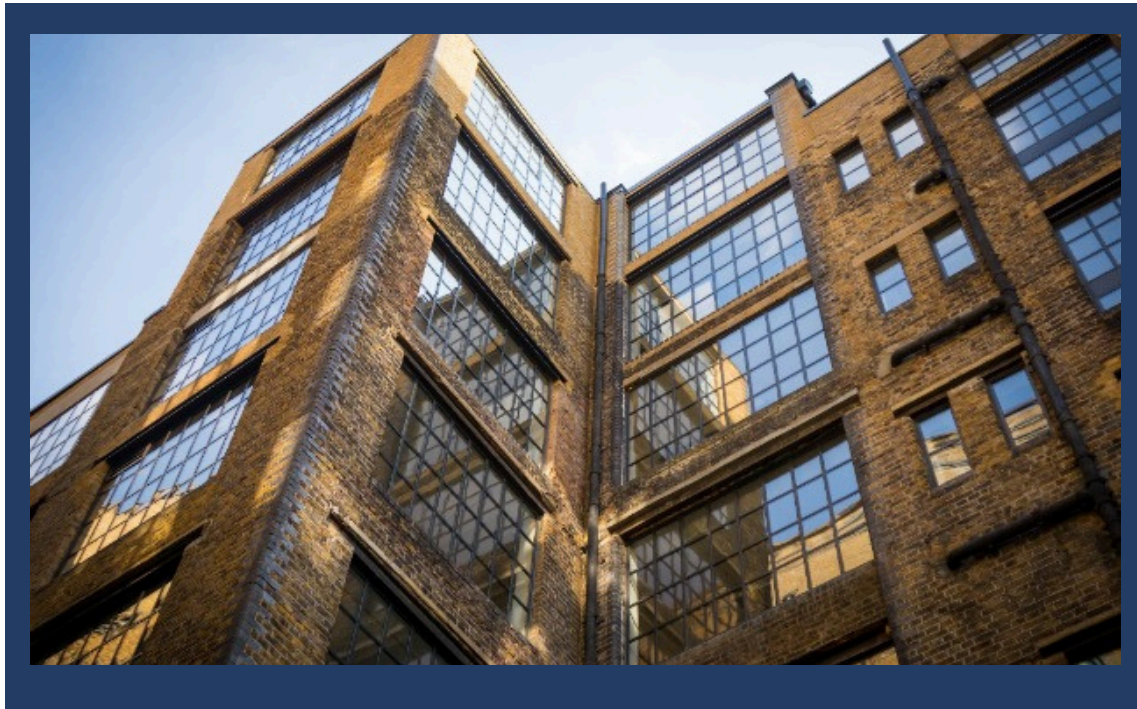
Doors can be manufactured as double or single-hinged swing doors up to a maximum of 1800 mm wide and 2400 mm high (both maximums cannot be specified at the same time). Runs of fixed or opening glazing to the sides or above the doors can be fabricated to ensure that an entire space can be filled.

Some customers will want a screen design with more than one set of double doors so as to provide a link between the garden and home when they are in the open position. Shaped frames are also possible and so gables, raked heads and arches are not a problem for our members.



W20 WINDOWS





The Steel Window Association represents the great majority of UK steel window manufacturers, ranging in size from the smallest of craft-based companies that specialise in replacement and repair work, particularly on windows for Heritage buildings, through to large, multi-site companies that manufacture and install windows in literally every type of building. There is not a single steel window project of any description, anywhere in the UK, that one of the SWA members cannot handle.

All windows produced by SWA members in hot rolled steel sections to BS.6510 are protected by the hot dip galvanizing process in accordance with BS EN ISO 1461. Cold formed steel section windows are also available, and all steel section windows can be supplied with a decorative finish available in a range of colours. This process, in which polyester powder is electrostatically applied then heat fused under factory-controlled conditions to BS EN 13438, gives a high quality, attractive and durable finish with a life expectancy of at least 15 years.

The Steel Window Association supports its member companies with a wide-ranging service relating to product development, market research and promotion and the SWA helps ensure that each member operates to the highest industry standards. Every contract undertaken has the personal attention of senior management and SWA member companies operate established and flexible services in window design, manufacture, installation and repair and refurbishment.

